

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In continuation of:

WASHINO ET AL.

Serial No.: 09/113,615

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Examiner: Harvey

For: MULTI-FORMAT AUDIO/VIDEO PRODUCTION SYSTEM

Continuation application:

WASHINO ET AL.

Attorney Docket No. FNI-02604/03

For: MULTI-FORMAT AUDIO/VIDEO PRODUCTION SYSTEM

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Prior to examination, please amend the above-referenced continuation application as follows:

IN THE CLAIMS

Cancel claim 1.

Please add new claims 26-109 as follows:

26. (New) A high capacity storage medium having a video program stored thereon, the video program comprising:

a digital audio component;

a digital video component having an intermediate format having a frame rate of substantially 24 frames per second (fps), the digital video component having been formed by converting an input

video program having an input format with no added redundant frames or fields to the digital video component in the intermediate format;

wherein the digital audio component and the digital video component in its intermediate format are stored on the high capacity storage medium and wherein the digital video component is viewed by converting the digital video component to an output video program having an output format, the output format having a frame rate greater than or equal to the frame rate of the intermediate format of the digital video component.

27. (New) The high capacity storage medium of claim 26, wherein the high capacity storage medium is a magnetic-disc-based medium.

28. (New) The high capacity storage medium of claim 26, wherein the high capacity storage medium is an optical-disc-based medium.

29. (New) The high capacity storage medium of claim 26, wherein the high capacity storage medium is a magneto-optical-disc-based medium.

30. (New) The high capacity storage medium of claim 26, wherein the high capacity storage medium is a magnetic-tape-based medium.

31. (New) The high capacity storage medium of claim 26, wherein the high capacity storage medium is removable.

32. (New) The high capacity storage medium of claim 26, wherein the digital video component of the program is stored on the high capacity storage medium in a compressed digital format.

33. (New) The high capacity storage medium of claim 32, wherein the compressed digital format is MPEG.

34. (New) The high capacity storage medium of claim 26, wherein the output format is selected from the group consisting of:

NTSC at substantially 30 fps;

PAL/SECAM at substantially 25 fps;

HDTV at substantially 24, 25, or 30 fps; and

Film-compatible video at substantially 24 fps.

35. (New) The high capacity storage medium of claim 26, wherein the output format has an image dimension in pixels selected from the group consisting of:

1024 x 576;

1024 x 768;

1280 x 720; and

1080 x 960.

36. (New) The high capacity storage medium of claim 26, wherein the intermediate format and output format have an image dimension in pixels, and wherein the image dimension of the output format is greater than that of the intermediate format.

37. (New) The high capacity storage medium of claim 26, wherein the input format does not have an image dimension in pixels.

38. (New) A high capacity storage medium having a video program stored thereon, the video program comprising:

a digital audio component;

a digital video component having an intermediate format being a compressed digital format having an image dimension in pixels and having a frame rate of substantially 24 frames per second (fps), the digital video component having been formed by converting an input video program having an input format with no added redundant frames or fields to the digital video component in the intermediate format;

wherein the digital audio component and the digital video component in its intermediate format are stored on the high capacity storage medium and wherein the digital video component is viewed by converting the digital video component to an output video program having an output format, the output format having a frame rate greater than or equal to the frame rate of the intermediate format of the digital video component and having an image dimension in pixels, the image dimension of the output format being greater than the image dimension of the intermediate format.

39. (New) A system for receiving and viewing a video program, the device comprising:
a receiver adapted to receive a signal representative of a video program sent from a remote location, the video program having a digital audio component and a digital video component, the digital video component having an intermediate format having a frame rate of substantially 24 frames per second (fps), the digital video component having been formed by converting an input video program having an input format with no added redundant frames or fields;

a drive in data communication with the receiver adapted to store the digital audio component and the digital video component in its intermediate format on a high capacity storage medium and adapted to read the digital video component in its intermediate format from the high capacity storage medium;

a graphics processor in data communication with the drive and adapted to convert the digital video component in its intermediate format to an output video program having an output format, the output format having a frame rate that is greater than or equal to the frame rate of the intermediate format, the graphics processor further being in data communication with a display device for viewing the output video program in the output format.

40. (New) The system of claim 39, wherein the graphics processor is a component of a personal computer.

41. (New) The system of claim 39, wherein the graphics processor is a software-based graphics processor.

42. (New) The system of claim 39, wherein the graphics processor is a hardware-based graphics processor.

43. (New) The system of claim 39, wherein the high capacity storage medium is a magnetic-disc-based medium.

44. (New) The system of claim 39, wherein the high capacity storage medium is an optical-disc-based medium.

45. (New) The system of claim 39, wherein the high capacity storage medium is a magneto-optical-disc-based medium.

46. (New) The system of claim 39, wherein the high capacity storage medium is a magnetic-tape-based medium.

47. (New) The system of claim 39, wherein the high capacity storage medium is removable.

48. (New) The system of claim 47, having a first drive in data communication with the receiver adapted to store the digital audio component and the digital video component in its intermediate format on a high capacity storage medium and having a second drive adapted to read the digital video component in its intermediate format from the high capacity storage medium, wherein the graphics processor is in data communication with the second drive.

49. (New) The system of claim 48, wherein the first drive is at a location that is physically remote from the location of the second drive.

50. (New) The system of claim 39, wherein the digital video component of the program is stored on the high capacity storage medium in a compressed digital format.

51. (New) The system of claim 50, wherein the compressed digital format is MPEG.

52. (New) The system of claim 39, wherein the output format is selected from the group consisting of:

NTSC at substantially 30 fps;

PAL/SECAM at substantially 25 fps;

HDTV at substantially 24, 25, or 30 fps; and

film-compatible video at substantially 24 fps.

53. (New) The system of claim 39, wherein the output format has an image dimension in pixels selected from the group consisting of:

1024 x 576;

1024 x 768;

1280 x 720; and

1080 x 960.

54. (New) The system of claim 39, wherein the signal representative of the video program is received via at least one broadcast signal.

55. (New) The system of claim 39, wherein the signal representative of the video program is received via at least one satellite signal.

56. (New) The system of claim 39, wherein the signal representative of the video program is received via a high bandwidth data network.

57. (New) The system of claim 39, wherein the intermediate format of the digital video component and the output format of the output program have an image dimension in pixels, and wherein the image dimension of the intermediate format is less than that of the output format.

58. (New) The system of claim 39, wherein the input format does not have an image dimension in pixels.

59. (New) A system for receiving and viewing a video program, the device comprising:
a receiver adapted to receive a signal representative of a video program sent from a remote
location, the video program having a digital audio component and a digital video component, the
digital video component having an image dimension in pixels and having an intermediate format
having a frame rate of substantially 24 frames per second (fps), the digital video component having
been formed by converting an input video program having an input format with no added redundant
frames or fields;

a drive in data communication with the receiver adapted to store the digital audio component
and the digital video component in its intermediate format on a high capacity storage medium and
adapted to read the digital video component in its intermediate format from the high capacity
storage medium;

a graphics processor in data communication with the drive and adapted to convert the digital
video component in its intermediate format to an output video program having an output format, the
output format having a frame rate that is greater than or equal to the frame rate of the intermediate
format and having an image dimension in pixels, the image dimension of the output format being
greater than the image dimension of the intermediate format, the graphics processor further being in
data communication with a display device for viewing the output video program in the output
format.

60. (New) A system for viewing a video program stored on a removable high capacity
storage medium, the device comprising:

a drive adapted to read the video program from the high capacity storage medium, the video
program stored on the high capacity storage medium having a digital audio component and a digital
video component, the digital video component having an intermediate format having a frame rate of
substantially 24 frames per second (fps), the digital video component having been formed by
converting an input video program having an input format with no added redundant frames or
fields;

a graphics processor in data communication with the drive and adapted to convert the digital
video component in its intermediate format to an output video program in an output format, the

output format having a frame rate that is greater than or equal to the frame rate of the intermediate format, the graphics processor further being in data communication with a display device for viewing the output video program in the output format.

61. (New) The system of claim 60, wherein the graphics processor is a component of a personal computer.

62. (New) The system of claim 60, wherein the graphics processor is a software-based graphics processor.

63. (New) The system of claim 60, wherein the graphics processor is a hardware-based graphics processor.

64. (New) The system of claim 60, wherein the removable high capacity storage medium is a magnetic-disc-based medium.

65. (New) The system of claim 60, wherein the removable high capacity storage medium is an optical-disc-based medium.

66. (New) The system of claim 60, wherein the removable high capacity storage medium is a magneto-optical-disc-based medium.

67. (New) The system of claim 60, wherein the removable high capacity storage medium is a magnetic-tape-based medium.

68. (New) The system of claim 60, wherein the digital video component of the program is stored on the high capacity storage medium in a compressed digital format.

69. (New) The system of claim 68, wherein the compressed digital format is MPEG.

GIFFORD, KRASS, GROH, SPRINKLE, ANDERSON & CITKOWSKI, P.C. 280 N. OLD WOODWARD AVENUE, STE. 400, BIRMINGHAM, MICHIGAN 48009-5394 (248) 647-6000

70. (New) The system of claim 60, wherein the output format is selected from the group consisting of:

NTSC at substantially 30 fps;

PAL/SECAM at substantially 25 fps;

HDTV at substantially 24, 25, or 30 fps; and

film-compatible video at substantially 24 fps.

71. (New) The system of claim 60, wherein the output format has an image dimension in pixels selected from the group consisting of:

1024 x 576;

1024 x 768;

1280 x 720; and

1080 x 960.

72. (New) The system of claim 60, wherein the intermediate format of the digital video component and the output format of the output program have an image dimension in pixels, and wherein the image dimension of the output format is greater than that of the intermediate format.

73. (New) The system of claim 60, wherein the input format does not have an image dimension in pixels.

74. (New) A system for viewing a video program stored on a removable high capacity storage medium, the device comprising:

a drive adapted to read the video program from the high capacity storage medium, the video program stored on the high capacity storage medium having a digital audio component and a digital video component, the digital video component having an intermediate format having an image dimension in pixels and having a frame rate of substantially 24 frames per second (fps), the digital video component having been formed by converting an input video program having an input format with no added redundant frames or fields;

a graphics processor in data communication with the drive and adapted to convert the digital video component in its intermediate format to an output video program in an output format, the output format having a frame rate that is greater than or equal to the frame rate of the intermediate format and having an image dimension in pixels, the image dimension of the output format being greater than the image dimension of the intermediate format, the graphics processor further being in data communication with a display device for viewing the output video program in the output format.

75. (New) A method for viewing a video program, the method comprising:

receiving a signal representative of a video program sent from a remote location, the video program having a digital audio component and a digital video component, the digital video component having an intermediate format having a frame rate of substantially 24 frames per second (fps), the digital video component having been formed by converting an input video program having an input format with no added redundant frames or fields;

storing the digital audio component and the digital video component in its intermediate format on a high capacity storage medium;

reading the digital video program from the high capacity storage medium;

processing the digital video component of the video program with a graphics processor to convert the digital video component in its intermediate format to an output video program in an output format, the output format having a frame rate that is greater than or equal to the frame rate of the intermediate format of the digital video component; and

sending the output video program in the output format to a display device for viewing.

76. (New) The method of claim 75, wherein the graphics processor is a component of a personal computer.

77. (New) The method of claim 75, wherein the graphics processor is a software-based graphics processor.

78. (New) The method of claim 75, wherein the graphics processor is a hardware-based graphics processor.

79. (New) The method of claim 75, wherein the high capacity storage medium is a magnetic-disc-based medium.

80. (New) The method of claim 75, wherein the high capacity storage medium is an optical-disc-based medium.

81. (New) The method of claim 75, wherein the high capacity storage medium is a magneto-optical-disc-based medium.

82. (New) The method of claim 75, wherein the high capacity storage medium is a magnetic-tape-based medium.

83. (New) The method of claim 75, wherein the high capacity storage medium is removable.

84. (New) The method of claim 75, wherein the digital audio component and digital video component are stored on the high capacity storage medium in a first drive and the digital video program is read from the high capacity storage medium in a second drive and wherein the first drive is at a location that is physically remote from the location of the second drive.

85. (New) The method of claim 75, wherein the digital video component of the program is stored on the high capacity storage medium in a compressed digital format.

86. (New) The method of claim 75, wherein the compressed digital format is MPEG.

87. (New) The method of claim 75, wherein the output format is selected from the group consisting of:

NTSC at substantially 30 fps;

PAL/SECAM at substantially 25 fps;

HDTV at substantially 24, 25, or 30 fps; and

film-compatible video at substantially 24 fps.

88. (New) The method of claim 75, wherein the output format has an image dimension in pixels selected from the group consisting of:

1024 x 576;

1024 x 768;

1280 x 720; and

1080 x 960.

89. (New) The method of claim 75, wherein the signal representative of a video program is received via at least one broadcast signal.

90. (New) The method of claim 75, wherein the signal representative of a video program is received via at least one satellite signal.

91. (New) The method of claim 75, wherein the signal representative of a video program is received via a high bandwidth data network.

92. (New) The method of claim 75, wherein the intermediate format of the digital video component and the output format of the output program have an image dimension in pixels, and wherein the image dimension of the output format is greater than that of the intermediate format.

93. (New) The method of claim 75, wherein the input format does not have an image dimension in pixels.

94. (New) A method for viewing a video program, the method comprising:
receiving a signal representative of a video program sent from a remote location, the video program having a digital audio component and a digital video component, the digital video

component having an intermediate format having an image dimension in pixels and having a frame rate of substantially 24 frames per second (fps), the digital video component having been formed by converting an input video program having an input format with no added redundant frames or fields;

storing the digital audio component and the digital video component in its intermediate format on a high capacity storage medium;

reading the digital video program from the high capacity storage medium;

processing the digital video component of the video program with a graphics processor to convert the digital video component in its intermediate format to an output video program in an output format, the output format having a frame rate that is greater than or equal to the frame rate of the intermediate format of the digital video component and having an image dimension in pixels, the image dimension of the output format being greater than the image dimension of the intermediate format; and

sending the output video program in the output format to a display device for viewing.

95. (New) A method for viewing a video program, the method comprising:

providing a removable high capacity storage medium having stored thereon a video program having a digital audio component and a digital video component, the digital video component having an intermediate format having a frame rate of substantially 24 frames per second (fps), the digital video component having been formed by converting an input video program having an input format with no added redundant frames or fields;

placing the removable high capacity storage medium into a drive;

reading the digital video program in its intermediate format from the high capacity storage medium with the drive;

sending the digital video program in its intermediate format to a graphics processor;

processing the digital video component of the video program with the graphics processor to convert the digital video component in its intermediate format to an output video program in an output format, the output format having a frame rate that is greater than or equal to the frame rate of the intermediate format of the digital video component; and

sending the output video program in the output format to a display device for viewing.

96. (New) The method of claim 95, wherein the graphics processor is a component of a personal computer.

97. (New) The method of claim 95, wherein the graphics processor is a software-based graphics processor.

98. (New) The method of claim 95, wherein the graphics processor is a hardware-based graphics processor.

99. (New) The method of claim 95, wherein the high capacity storage medium is a magnetic-disc-based medium.

100. (New) The method of claim 95, wherein the high capacity storage medium is an optical-disc-based medium.

101. (New) The method of claim 95, wherein the high capacity storage medium is a magneto-optical-disc-based medium.

102. (New) The method of claim 95, wherein the high capacity storage medium is a magnetic-tape-based medium.

103. (New) The method of claim 95, wherein the digital video component of the program is stored on the high capacity storage medium in a compressed digital format.

104. (New) The method of claim 103, wherein the compressed digital format is MPEG.

105. (New) The method of claim 95, wherein the output format is selected from the group consisting of:

NTSC at substantially 30 fps;

PAL/SECAM at substantially 25 fps;

HDTV at substantially 24, 25, or 30 fps; and

film-compatible video at substantially 24 fps.

106. (New) The method of claim 95, wherein the output format has an image dimension in pixels selected from the group consisting of:

1024 x 576;

1024 x 768;

1280 x 720; and

1080 x 960.

107. (New) The method of claim 95, wherein the intermediate format of the digital video component and the output format of the output program have an image dimension in pixels, and wherein the image dimension of the output format is greater than that of the intermediate format.

108. (New) The method of claim 95, wherein the input format does not have an image dimension in pixels.

109. (New) A method for viewing a video program, the method comprising:
providing a removable high capacity storage medium having stored thereon a video program having a digital audio component and a digital video component, the digital video component having an intermediate format having an image dimension in pixels and having a frame rate of substantially 24 frames per second (fps), the digital video component having been formed by converting an input video program having an input format with no added redundant frames or fields;

placing the removable high capacity storage medium into a drive;

reading the digital video program in its intermediate format from the high capacity storage medium with the drive;

processing the digital video component of the video program with a graphics processor to convert the digital video component in its intermediate format to an output video program in an

output format, the output format having a frame rate that is greater than or equal to the frame rate of the intermediate format of the digital video component and having an image dimension in pixels, the image dimension of the output format being greater than the image dimension of the intermediate format; and

sending the output video program in the output format to a display device for viewing.

REMARKS

This by amendment, claim 1 has been canceled. Claims 2-25 were canceled on the continuation application transmittal letter herein. New claims 26-109 have been added for examination of the Examiner.

Respectfully submitted,

By: 

John G. Posa

Reg. No. 37,424

Gifford, Krass, Groh, Sprinkle,
Anderson & Citkowski, PC

280 N. Old Woodward Ave., Ste 400

Birmingham, MI 48009

(734) 913-9300 FAX (734) 913-6007

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